(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 6 January 2005 (06.01,2005)

PCT

(10) International Publication Number WO 2005/001165 A1

- (51) International Patent Classification7: C25C 5/02, 7/00
- (21) International Application Number:

PCT/EP2004/006790

(22) International Filing Date:

23 June 2004 (23.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: MI2003A001270

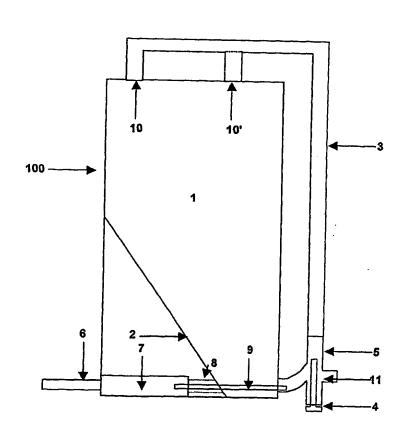
24 June 2003 (24.06.2003) IT

(71) Applicant (for all designated States except US): DE NORA ELETTRODI S.P.A. [IT/IT]; Via Dei Canzi, 1, I-20134 Milano (IT).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ROBINSON, Douglas, J. [US/US]; 4437 East Voltaire, Phoenix, AZ 85032 (US). MACDONALD, Stacey, A. [US/US]; 4437 East Voltaire, Phoenix, AZ 85032 (US). SCOTTI, Davide [IT/IT]; Via Pirandello 5, I-20092 Cinisello Balsamo (IT). TODARO, Francesco [IT/IT]; Viale Romagna, 48, I-20133 Milano (IT).
- (74) Agent: REITSTÖTTER, KINZEBACK & PARTNER (GBR); Sternwartstrasse 4, 81679 München (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,

[Continued on next page]

(54) Title: FALLING BED CATHODE CELL FOR METAL ELECTROWINNING



(57) Abstract: A cell (100) for metal electrowinning from metal ion solutions is described, wherein the cathode (1) consists of a falling bed of growing beads; the beads, withdrawn from the lower part of the bed, are recycled to the top section of the cathodic compartment by means of an external vertical duct (3).

WO 2005/001165 A1

PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.